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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Friedman

Group Art Unit: 2179

Application No. 10/740,744

Examiner: Tran

Filed: December 19, 2003

Title: "ADAPTIVE DISCOVERY AND CONFIGURATION OF A USER-SELECTED INPUT/OUTPUT DEVICE"

37 C.F.R. § 1.8 CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via facsimile to the USPTO centralized facsimile telephone number (571) 273-8300.

Scott P. Zimmerman

Name of Person Transmitting This Paper



January 25, 2008

Date of Transmission

APPELLANT'S BRIEF IN SUPPORT OF APPEAL

Mail Stop: Appeal Brief — Patents
Commissioner for Patents

The Assignee/Appellant hereby submits a Brief in Support of Appeal for the above-identified application. This Brief is accompanied by a credit card authorization form to charge the 37 C.F.R. § 41.20 (b) (2) large entity fee of \$510.00.

A Notice of Appeal was filed November 28, 2007.

If any questions arise, the Office is requested to contact the undersigned at (919) 469-2629 or scott@scottzimmerman.com.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott P. Zimmerman", with a stylized flourish at the end.

Scott P. Zimmerman
Reg. No. 41,390
Attorney for Appellant

Attorney Docket: 030563
U.S. Application No. 10/740,744 Examiner Tran Art Unit 2179
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APPELLANT'S BRIEF IN SUPPORT OF APPEAL

REAL PARTY IN INTEREST

BellSouth Intellectual Property Corporation (now doing business as AT&T Delaware Intellectual Property, Inc.), as the assignee of U.S. Patent Application 10/740,744, is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences pertaining to the above-identified application.

STATUS OF CLAIMS

Claims 1-2, 6-8, 11, 17-18, 20-21, and 23 were finally rejected under 35 U.S.C. § 103 (a) as being obvious over U.S. Patent 6,266,571 to Fado, *et al.* in view of U.S. Patent 6,789,111 to Brockway, *et al.*

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Claims 3-5, 9-10, 12-16, 19, and 22 were finally rejected under 35 U.S.C. § 103 (a) as being obvious over *Fado* in view of *Brockway* and further in view of MATTHEW, ET AL., HOME NETWORKING WITH MICROSOFT WINDOWS XP: STEP BY STEP.

The Appellant appeals this final rejection of claims 1-23.

STATUS OF AMENDMENTS

An Amendment After Final Rejection was submitted October 26, 2007. According to an Advisory Action mailed November 14, 2007, the amendments were entered for the purposes of appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter generally relates to an automatic discovery of input/output devices that are connected to a computer. A computer typically includes one or more "ports" to which input/output devices (*e.g.*, printers, microphones, and cameras) are connected. Typically a user must be "tech savvy" and select an appropriate software "driver" for each input/output device (or "I/O" device). If the software driver cannot be located, the computer may not recognize the I/O device.

This invention, instead, presents a more user-friendly alternative. This invention automatically detects when a camera (or other I/O device) has been connected to a computer. The user simply connects the I/O device to the computer and then provides a "stimulus." The stimulus, for example, may be speaking into a microphone, waving a hand in front of a camera, or in some other way activating the I/O device. In response to the stimulus, the I/O device generates a stimulus signal. This invention polls all the input ports to detect which I/O device is generating the stimulus signal. Once the stimulus signal is detected, the computer now knows the port to which the I/O device is connected. The invention may then optionally proceed to present the parameters for configuring the detected I/O device.

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A) Claim 1

In accordance with an exemplary embodiment, independent claim 1 recites a computer system, comprising:

a processor coupled with memory and with a plurality of externally-accessible input ports; and

a device discovery system that polls all the plurality of externally-accessible input ports to identify a user-desired input device among a plurality of substantially similar input devices, wherein the identification is carried out by detecting a signal that is generated by the user-desired input device in response to a signal stimulus provided by a user.

Textual support for claim 1 is also provided. A processor coupled with memory and with a plurality of externally-accessible input ports is discussed at least at paragraph [0041] and illustrated in FIG. 3. The device discovery system, which polls all the ports, is discussed at least at paragraphs [0056] and [0082]. Detection of the signal is discussed at least at paragraphs [0056], [0062], and [0082].

B) Claim 8

In accordance with another exemplary embodiment, claim 8 recites a computer system, comprising:

a processor coupled with memory and with a plurality of externally-accessible input ports; and

a device discovery system that polls all the plurality of input ports to discover a valid connectivity of an audio input device coupled to the computer system by detecting a

signal that is generated by the audio input device in response to a user providing an audible stimulus to the audio input device.

Textual support for claim 8 is provided. A processor coupled with memory and with a plurality of externally-accessible input ports is discussed at least at paragraph [0041] and illustrated in FIG. 3. The device discovery system, which polls all the ports to discover an audio input device, is discussed at least at paragraphs [0035], [0064], and [0082]. The audible stimulus and the detection of the signal is discussed at least at paragraphs [0035], [0064], and [0082].

C) Claim 11

In accordance with yet another exemplary embodiment, claim 11 recites a computer readable media having stored thereon a software wizard program, the program comprising:

logic configured to provide instructions to a user for selecting an audio input device from a plurality of substantially similar audio input devices that have been communicatively coupled to a first respective plurality of externally-accessible input ports of a computer system;

logic configured to identify the user-selected audio input device by polling all the plurality of externally-accessible input ports and detecting a signal that is generated by the user-selected audio input device in response to an audible stimulus that is provided by the user to the user-selected audio input device; and

logic to execute the software wizard program.

Textual support for claim 11 is provided. The computer readable media is discussed at least at paragraphs [0047], [0057], and [0058]. The logical instructions are discussed at least at paragraphs [0044] and [0045]. The selection of the audio input device, and the polling of the ports, is discussed at least at paragraphs [0035], [0064], and [0082]. The audible stimulus and the detection of the signal is discussed at least at paragraphs [0035], [0064], and [0082].

D) Claim 17

In accordance with yet another exemplary embodiment, claim 17 recites a computer system, comprising:

a processor communicating with memory and executing instructions stored in the memory, the instructions comprising logic configured to discover a user-desired input device among a plurality of substantially similar input devices coupled to a respective plurality of externally-accessible input ports of the computer system, the logic configured to poll all the plurality of externally-accessible input ports, wherein the discovery is carried out by detecting a signal that is generated by the user-desired input device in response to a signal stimulus provided by a user.

Textual support for claim 17 is provided. The processor, memory, and externally-accessible input ports are discussed at least at paragraph [0041] and illustrated in FIG. 3. The polling of all the ports is discussed at least at paragraphs [0056] and [0082]. Detection of the signal is discussed at least at paragraphs [0056], [0062], and [0082].

E) Claim 20

In accordance with yet another exemplary embodiment, claim 20 recites a method of discovering and configuring a user-desired input device among a plurality of substantially similar input devices coupled to a respective plurality of externally-accessible input ports of a computer system, the method comprising:

launching a software wizard to provide instructions to a user;
instructing the user to provide a signal stimulus into the user-desired input device;
polling all the plurality of externally-accessible input ports for responses to the signal stimulus;

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measuring a first signal amplitude that is received at a first input port of the plurality of externally-accessible input ports, the first signal amplitude generated by a first input device among the plurality of substantially similar input devices;

measuring a second signal amplitude that is received at a user-desired input port of the plurality of externally-accessible input ports, the second signal amplitude generated by the user-desired input device in response to the signal stimulus provided by the user; and

processing the first and second signal amplitudes to identify the user-desired input device.

Textual support for claim 20 is provided. The software wizard is discussed at least at paragraphs [0010], [0032], [0035] through [0037], and [0041]. The signal stimulus is discussed at least at paragraphs [0009] through [0010], [0034], and [0038]. The polling of all the ports is discussed at least at paragraphs [0056] and [0082]. Measurement and processing of the first signal amplitude and of the second signal amplitude is discussed at least at paragraphs [0010], [0035], [0037], and [0056].

F) Claim 23

In accordance with yet another exemplary embodiment, claim 23 recites another computer program product that stores computer-readable instructions for performing a method of discovering and configuring an audio output device, the method comprising:

instructing a user to select the audio input device from a plurality of substantially similar audio input devices that have been communicatively coupled to a plurality of externally-accessible input ports of a computer system;

polling all the plurality of externally-accessible input ports; and

detecting a signal that is generated by the user-selected audio input device in response to an audible stimulus that is provided by the user to the user-selected audio input device.

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Textual support for claim 23 is provided. The selection of the audio input device, and the polling of the ports, is discussed at least at paragraphs [0035], [0064], and [0082]. The audible stimulus and the detection of the signal is discussed at least at paragraphs [0035], [0064], and [0082].

GROUND'S OF REJECTION TO BE REVIEWED ON APPEAL

The Appellant appeals the final rejection of claims 1-2, 6-8, 11, 17-18, 20-21, and 23 under 35 U.S.C. § 103 (a) as being as being obvious over U.S. Patent 6,266,571 to Fado, *et al.* in view of U.S. Patent 6,789,111 to Brockway, *et al.*

The Appellant also appeals the final rejection of claims 3-5, 9-10, 12-16, 19, and 22 under 35 U.S.C. § 103 (a) as being obvious over *Fado* in view of *Brockway* and further in view of MATTHEW, ET AL., HOME NETWORKING WITH MICROSOFT WINDOWS XP: STEP BY STEP.

ARGUMENT

1. Due Process Requires an Adequate Response

The Office has not provided Due Process. The Appellant has argued that the proposed combination of *Fado* with *Brockway* cannot support a *prima facie* case for obviousness. The Appellant, in particular, presented compelling evidence that *Fado* must have its principle of operation impermissibly changed to support the *prima facie* case for obviousness. The Office, however, has failed to properly respond to this argument. As the Board knows, when an applicant argues that impermissible changes are required, the Office must substantively respond. In this application, however, the Office merely "respectfully disagrees and submits that ... *Fado* does not teach away from the claimed invention." Examiner Tran, Advisory Action mailed November 14, 2007, at page 3, line 5. Yet the Office provides no factual basis for their disagreement. The Office merely repeats why the proposed combination of *Fado* with *Brockway*

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teaches all the claimed features. This is not an adequate response to the Appellant's "impermissible changes" argument. Due Process requires that the Office properly respond with evidence. Any other action is a violation of the Assignee's Due Process safeguards.

The Board of Patent Appeals and Interferences is thus respectfully requested remove the final rejection of the pending claims. The Appellant also prays that the Board remand the application back to the Examiner for an adequate response to the Appellant's "impermissible changes" argument.

2. The Office Has Failed to Carry the Burden

The Office has failed to carry their burden of responding to the Appellant's "impermissible changes" argument. When the Appellant presented an "impermissible changes" argument, the Office had the burden of rebuttal. The Office, instead, responded with a recitation of why the pending claims are obvious.

The Office has failed their burden. The Appellant presented compelling evidence that *Fado* must have its principle of operation impermissibly changed to support the *prima facie* case for obviousness. The Office responded with an Advisory Action (mailed November 14, 2007). In this Advisory Action, the Office merely states that the "Examiner respectfully disagrees and submits that ... *Fado* does not teach away from the claimed invention." Examiner Tran, Advisory Action mailed November 14, 2007, at page 3, line 5. In this same Advisory Action, the Office even "admits that *Fado* does not teach polling all the plurality of externally-accessible input ports." *Id.* at page 3, line 8. The Advisory Action then goes on to discuss how the proposed combination of *Fado* with *Brockway* obviates the rejected claims.

The Office has failed their burden. The Office had the burden to factually explain how and why *Fado*'s principle of operation would not have to be impermissibly changed. The Office, instead, responded with a recitation of an obvious rejection. The Office, instead, must agree or counter with factual evidence of why *Fado*'s principle of operation need not be changed to make

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the *prima facie* case. A mere disagreement does not satisfy their burden. The Office presents no facts in support of their response.

The Board of Patent Appeals and Interferences is thus respectfully requested remove the final rejection of the pending claims. The Appellant also prays that the Board remand the application back to the Examiner for an adequate response to the Appellant's "impermissible changes" argument.

3. *Fado* Requires "Impermissible Changes" and Cannot Support the § 103 (a) Rejection of the Claims

As the Appellant has argued, *Fado*'s principle of operation must be impermissibly changed to support the Office's *prima facie* case for obviousness. If the proposed combination changes the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to support a *prima facie* case. See M.P.E.P. at § 2143.01.

The *prima facie* cases all require impermissible changes to *Fado*'s principle of operation. *Fado* only polls a device port that has been manually selected by a user. *Fado* does not poll "*all*" input ports, as all the independent claims recite. Because *Fado* only polls a port that has been manually selected by the user, *Fado*'s principle of operation must be impermissibly changed to support the *prima facie* cases.

Fado provides an explanation. *Fado* explains a microphone test procedure. See U.S. Patent 6,266,571 to *Fado, et al.* at column 9, lines 54-56 and at column 10, lines 57-60. The "user is instructed to remain silent" and a room noise level is recorded. *Id.* at column 11, lines 5-11. "The user is instructed to recite a phrase into the microphone." *Id.* at column 11, lines 14-15. *Fado*'s tool compares signal and noise levels. *Id.* at column 11, lines 24-32. "If the microphone test is not successful," the user is reminded of the proper connection. See U.S. Patent 6,266,571 to *Fado, et al.* at column 11, lines 35-40 (emphasis added). A GUI displays a picture "depending upon the user's prior selection of an output audio device." *Id.* at column

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11, lines 40-41 (emphasis added). If a retest is unsuccessful, a power adapter and/or battery adapter for the microphone may be tested. *See id.* at column 11, line 50 through column 12, line 23. **A GUI displays pictures “correspond[ing] to audio output device selected by the user.”** *Id.* at column 12, lines 23-31 (emphasis added). *Fado* continues to explain that when the tool cannot adjust the microphone's audio level, the user may readjust sound card parameters. *See* U.S. Patent 6,266,571 to *Fado, et al.* at column 13, lines 52-57. **FIG. 47 illustrates that when the microphone test is unsuccessful, a GUI instructs the user to re-check that the microphone is connected to the “correct jack.”** *See* U.S. Patent 6,266,571 to *Fado, et al.* at FIG. 47 (emphasis added). *See also id.* at column 14, lines 65-67.

Fado, then, requires impermissible changes. All the independent claims recite features for polling “all” input ports. Because *Fado* only polls a device port that has been manually selected by a user, *Fado*'s principle of operation must be impermissibly changed to support the *prima facie* cases. Because the patent laws forbid changing a principle of operation to support a *prima facie* case, *Fado* cannot support a *prima facie* case for obviousness. Moreover, as *Fado*'s principle of operation must be impermissibly changed, one of ordinary skill in the art would not find it obvious to modify the teachings of *Fado* to obviate the pending claims, as the Office proposes.

The Board of Patent Appeals and Interferences is thus respectfully requested remove the final rejection of the pending claims.

CONCLUSION

In view of the foregoing reasons, the Appellant respectfully requests removal of the § 103 (a) rejections of claims 1-23 over *Fado*, *Brockway*, and/or *Matthew*.

AUTHORIZATION FOR PAYMENT OF FEES

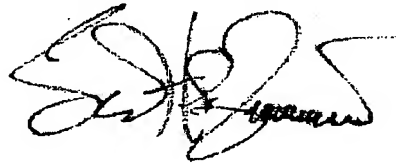
If there are any other fees due in connection with the filing of this brief in support of appeal, please charge the fees to the credit card identified in the Credit Card Payment Form

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submitted herewith. If any additional fees are required, such as a fee for an extension of time under 37 C.F.R. § 1.136, such extension of time is requested and the fee should also be charged to the credit card on file.

If any issues remain outstanding, the Office is requested to contact the undersigned at (919) 469-2629 or scott@scottzimmerman.com.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Scott P. Zimmerman', with a stylized flourish at the end.

Scott P. Zimmerman
Attorney for the Assignee/Appellant
Reg. No. 41,390

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CLAIMS APPENDIX

U.S. Patent Application No. 10/740,744 Pending Claims

1. A computer system comprising:

a processor coupled with memory and with a plurality of externally-accessible input ports; and

a device discovery system that polls all the plurality of externally-accessible input ports to identify a user-desired input device among a plurality of substantially similar input devices, wherein the identification is carried out by detecting a signal that is generated by the user-desired input device in response to a signal stimulus provided by a user.
2. The computer system of claim 1, further comprising a device configuration system that configures the user-desired input device to operate together with a software application program on the computer system.
3. The computer system of claim 2, wherein the software application program is an audio-video communication program that permits the user of the computer system to communicate with a second user of a second computer system, via an audio-video communication link.
4. The computer system of claim 3, wherein the software program is a video chat program.
5. The computer system of claim 3, wherein the audio-video communication link comprises a digital subscriber line.

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6. The computer system of claim 1, wherein the plurality of input ports are coupled to substantially similar audio input devices, and the device discovery system identifies the user-desired input device by unmuting an output from the user-desired input device.
7. The computer system of claim 1, further comprising an output device that is housed together with the user-desired input device in a common enclosure.
8. A computer system comprising:
 - a processor coupled with memory and with a plurality of externally-accessible input ports; and
 - a device discovery system that polls all the plurality of input ports to discover a valid connectivity of an audio input device coupled to the computer system by detecting a signal that is generated by the audio input device in response to a user providing an audible stimulus to the audio input device.
9. The computer system of claim 8, further comprising a video input device coupled to any second one of a plurality of externally-accessible input ports of a computer system; and wherein the device discovery system polls the plurality of input ports to discover a valid connectivity of the video input device to the computer system by detecting a signal that is generated by the video input device in response to a user providing a visual stimulus to the video input device.
10. The computer system of claim 9, wherein the device discovery system unmutes the audio input device to discover the valid connectivity of the audio input device to the computer system.
11. A computer readable media having stored thereon a software wizard program, the program comprising:

logic configured to provide instructions to a user for selecting an audio input device from a plurality of substantially similar audio input devices that have been communicatively coupled to a first respective plurality of externally-accessible input ports of a computer system;

logic configured to identify the user-selected audio input device by polling all the plurality of externally-accessible input ports and detecting a signal that is generated by the user-selected audio input device in response to an audible stimulus that is provided by the user to the user-selected audio input device; and

logic to execute the software wizard program.

12. The computer readable media of claim 11, further comprising:

logic configured to provide instructions to a user for selecting a video input device from a plurality of substantially similar video input devices that have been communicatively coupled to a second respective plurality of externally-accessible input ports of the computer system;

logic configured to provide a dropdown list showing device identification labels for each of the plurality of video input devices; and

logic configured to provide instructions to the user in selecting a video input device from the dropdown list.

13. The computer readable media of claim 12, further comprising:

logic configured to identify the user-selected video input device by detecting a signal that is generated by the user-selected video input in response to a visual stimulus signal that is provided by the user to the user-selected video input device.

14. The computer readable media of claim 13, further comprising:

logic configured to provide instructions to the user for selecting an audio output device from a plurality of audio output devices that have been communicatively coupled to a first respective plurality of externally-accessible output ports of a computer system;

logic configured to provide a dropdown list showing device identification labels for each of the plurality of audio output devices;

logic configured to provide instructions to the user in selecting the audio output device from the dropdown list; and

logic configured to generate an audible test tone from the selected audio output device.

15. The computer readable media of claim 14, further comprising:

logic configured to provide a volume control icon;

logic configured to provide instructions to the user to operate the volume control icon to set a desired volume of the selected audio output device; and

logic configured to generate an audible test tone corresponding to the desired volume, from the selected audio output device.

16. The computer readable media of claim 12, wherein the first and second respective plurality of externally-accessible input ports are respectively common ports.

17. A computer system comprising:

a processor communicating with memory and executing instructions stored in the memory, the instructions comprising logic configured to discover a user-desired input device among a plurality of substantially similar input devices coupled to a respective plurality of externally-accessible input ports of the computer system, the logic configured to poll all the plurality of externally-accessible input ports, wherein the discovery is carried out by detecting a signal that is generated by the user-desired input device in response to a signal stimulus provided by a user.

18. The computer system of claim 17, further comprising:
logic configured to link a software driver of the user-desired input device to a software application program on the computer system.
19. The computer system of claim 18 wherein the software program is a video chat program.
20. A method of discovering and configuring a user-desired input device among a plurality of substantially similar input devices coupled to a respective plurality of externally-accessible input ports of a computer system, the method comprising:

launching a software wizard to provide instructions to a user;
instructing the user to provide a signal stimulus into the user-desired input device;
polling all the plurality of externally-accessible input ports for responses to the signal stimulus;

measuring a first signal amplitude that is received at a first input port of the plurality of externally-accessible input ports, the first signal amplitude generated by a first input device among the plurality of substantially similar input devices;

measuring a second signal amplitude that is received at a user-desired input port of the plurality of externally-accessible input ports, the second signal amplitude generated by the user-desired input device in response to the signal stimulus provided by the user;
and

processing the first and second signal amplitudes to identify the user-desired input device.
21. The method of claim 20, wherein the user-desired input device is an audio input device, and the signal stimulus is an audible signal that is coupled into the user-desired audio input device.

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22. The method of claim 20, wherein the user-desired input device is a video input device, and the signal stimulus is a visual signal that is coupled into the user-desired audio input device.
23. A computer program product storing computer-readable instructions for performing a method of discovering and configuring an audio output device, the method comprising:

instructing a user to select the audio input device from a plurality of substantially similar audio input devices that have been communicatively coupled to a plurality of externally-accessible input ports of a computer system;

polling all the plurality of externally-accessible input ports; and

detecting a signal that is generated by the user-selected audio input device in response to an audible stimulus that is provided by the user to the user-selected audio input device.

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EVIDENCE APPENDIX

There are no submissions pursuant to 37 CFR § 41.37 (c) (ix) for U.S. Patent Application No. 10/740,744.

RELATED PROCEEDINGS APPENDIX

There are no submissions pursuant to 37 CFR § 41.37 (c) (x) for U.S. Patent Application No. 10/740,744.